TITLE OF INVENTION: MIMO SYSTEM WITH MULTIPLE SPATIAL MULTIPLEXING MODES

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

# NOTICE OF ALLOWANCE AND FEE(S) DUE

23696 7590 07/26/2010
QUALCOMM INCORPORATED
5775 MOREHOUSE DR.

SAN DIEGO, CA 92121

EXAMINER

SMITH, MARCUS

ART UNIT PAPER NUMBER

2467

DATE MAILED: 07/26/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,429	10/23/2003	J. Rodney Walton	030417	2025

 APPLN. TYPE
 SMALL ENTITY
 ISSUE FEE DUE
 PUBLICATION FEE DUE
 PREV. PAID ISSUE FEE
 TOTAL FEE(s) DUE
 DATE DUE

 nonprovisional
 NO
 \$1510
 \$300
 \$0
 \$1810
 10/26/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

appropriate. All further indicated unless correcte maintenance fee notificat	form should be used I correspondence includir ed below or directed oth tions.	or transmitti ig the Pateni icrwise in B	ing the ISSU t, advance or lock 1, by (a	nders and notification a) specifying a new co	ot m erresp	ondence address;	and/or	nailed to the current (b) indicating a sepa	correspond rate "FEE	lence address as ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block I for any change of address)					Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.					
QUALCOMM 5775 MOREHO SAN DIEGO, C.	INCORPORATE USE DR.	/2010 D			I ben	Cer eby certify that th	tificate	of Mailing or Trans ) Transmittal is being ficient postage for firs SSUE FEE address () 273-2885, on the d	nission denosited	with the United
				I						(Depositor's name)
										(Signature)
										(Date)
APPLICATION NO.	FILING DATE			FIRST NAMED INVENT	NTOR		ATTORNEY DOCKET NO.		CONFIRMATION NO.	
10/693,429	10/23/2003			J. Rodney Walton				030417	2	2025
TITLE OF INVENTION										
APPLN, TYPE	SMALL ENTITY	ISSUE F		PUBLICATION FEE D	UE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE		ATE DUE
nonprovisional	NO	\$I:	510	\$300	_	\$0		\$1810	10	0/26/2010
EXAM	INER	ART	UNIT CLASS-SUBCLAS		$\Box$					
SMITH, N		24		370-208000						
"Fee Address" indi PTO/SB/47; Rev 03-0 Number is required.  3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 2 or more recent) attach	nge of Corre  "Indication I ed. Use of a	spondence form Customer		p to nativ ingle or a attor I be p	3 registered paten ely, firm (having as a gent) and the nam- neys or agents. If or inted.	memb es of u no nam	era 2oto		s been filed for
recordation as set forth (A) NAME OF ASSIC				(B) RESIDENCE: (C	ITY	and STATE OR C	OUNT			
4a. The following fee(s) a  Issue Fee Publication Fee (N Advance Order - #	o small entity discount p	permitted)	-	o. Payment of Fee(s): (I  A check is enclose  Payment by credit  The Director is her overpayment, to D	ed. card	I. Form PTO-2038	is atta	ched.		
	s SMALL ENTITY state	is. See 37 CI		b. Applicant is no						
NOTE: The Issue Fee and interest as shown by the r	d Publication Fee (if req records of the United Sta	uired) will no tes Patent an	ot be accepte d Trademark	d from anyone other the Office.	an th	e applicant; a regi	stered a	ttorney or agent; or th	e assignee	or other party in
Authorized Signature						Date				
Typed or printed name						Registration N				
This collection of inform an application. Confident submitting the completed this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C itality is governed by 35 I application form to the ons for reducing this but irginia 22313-1450. DC 13-1450.	FR 1.311. T U.S.C. 122 USPTO. Ti rden, should ONOT SENI	he information and 37 CFR me will vary be sent to the D FEES OR	on is required to obtain 1.14. This collection is depending upon the in e Chief Information Of COMPLETED FORMS	or re s esti ndivi fficer S TO	etain a benefit by the mated to take 12 r dual case. Any co r, U.S. Patent and THIS ADDRESS	ne publ ninutes mment Traden SENI	te which is to file (and to complete, including s on the amount of tire ark Office, U.S. Depa O TO: Commissioner	by the US g gathering ne you requ rtment of C or Patents,	PTO to process) , preparing, and nire to complete Commerce, P.O. P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandra, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 07/26/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/693,429	10/23/2003	J. Rodney Walton	030417 2025			
23696	7590 07/26/2010		EXAMINER			
QUALCOMM I	NCORPORATED	SMITH, MARCUS				
5775 MOREHOU		ART UNIT PAPER NU				
SAN DIEGO, CA	. 92121		2467			

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1183 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1183 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)	
	10/693,429	WALTON ET AL.	
Notice of Allowability	Examiner	Art Unit	
	MARCUS R. SMITH	2467	
The MAILING DATE of this communication apple.  All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-83) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this app or other appropriate communication IGHTS. This application is subject to	olication. If not included will be mailed in due cour	rse. THIS
<ol> <li>This communication is responsive to <u>RCE_filed 7/02/10</u>.</li> </ol>			
<ol> <li>∑ The allowed claim(s) is/are 35-39, 87-89, 40-41, 43-48, 92 renumbered as claims 1-44).</li> </ol>	-97, 61-63, 90, 64-66, 91, 67-68, 98-	102, 70-71, and 103-107 (	(resp.
3. ☐ Acknowledgment is made of a claim for foreign priority ur a) ☐ All b) ☐ Some* o, □ None of the: 1. ☐ Certified copies of the priority documents have 2. ☐ Certified copies of the priority documents have 3. ☐ Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)). * Certified copies not received: ☐ Applicant has THREE MONTHS FROM THE "MALLING DATE" noted below. Failure to timely comply will result in ABANDON' THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	been received.  been received in Application No cuments have been received in this to	national stage application	
<ol> <li>A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give</li> </ol>			CE OF
5. CORRECTED DRAWINGS ( as "replacement sheets") mus	st be submitted.		
(a) I including changes required by the Notice of Draftspers	son's Patent Drawing Review ( PTO-	948) attached	
1) hereto or 2) to Paper No./Mail Date	,		
<ul><li>(b) including changes required by the attached Examiner's Paper No./Mail Date</li></ul>	s Amendment / Comment or in the C	office action of	
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t	.84(c)) should be written on the drawin	ngs in the front (not the bac	k) of
<ol> <li>DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT</li> </ol>	sit of BIOLOGICAL MATERIAL n	nust be submitted. Note	the
Attachment(s) 1. □ Notice of References Cited (PTO-892) 2. □ Notice of Draftperson's Patent Drawing Review (PTO-948)	5. ☐ Notice of Informal P		
	Paper No./Mail Dat	ė	
<ol> <li>Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date</li> </ol>	7. Examiner's Amendr	nent/Comment	
<ol> <li>Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ol>	8. Examiner's Stateme	ent of Reasons for Allowan	ce
g.sai material	9.  Other		
	/Pankaj Kumar/		
	Supervisory Patent Exa	aminer. Art Unit 2467	